

REMARKS

A. Statement of Substance of Interview

Applicants thank the Examiner for granting the telephone interview of June 12, 2008, with the undersigned.

In response to the outstanding prior art rejections, Applicants' representative requested the Examiner to reconsider the Declaration submitted August 21, 2006, and the supplemental data submitted November 21, 2006, as evidence in support of the superior unexpected results exhibited by the present invention over the primary reference, Majumdar, and accordingly, as evidence sufficient to overcome the obviousness rejection.

Applicants' representative discussed that Majumdar discloses smectite clay as a preferred layered material, while the present claims recite that a laminar compound be a water-swellable mica. Applicants' representative further explained that mica is distinct from smectite (referring the Examiner to the *Clay Handbook* submitted with the August 21, 2006 submission), and that water-swellable synthetic mica shows excellent effects in suppressing curl in a wide range of temperature and humidity conditions. These effects, as evidenced in the accompanying Declaration and supplemental data, are unexpected from the disclosures in Majumdar and Ohbayashi.

Next, Applicants' representative discussed the results shown in Table A, attached to the 132 Declaration submitted on November 21, 2006. An ink-jet recording medium containing water-swellable mica exhibited superior unexpected properties (demonstrated by data from Example 1), such as a superior printing image quality, and did not exhibit the poor qualities of

curling and cracking, as exhibited by the ink-jet recording material containing smectite (demonstrated by data from Comparative Example 4).

Applicants' representative argued that Majumdar is the primary reference and that the data and declarations support the unexpected superior properties of the present application over the teachings of Majumdar. Applicants' representative explained that it is proper to consider unexpected experimental results exhibited by the present application over the results from working examples representing the teachings of primary reference in a §103 rejection, but the Examiner disagreed and said the evidence was irrelevant in view of the rejection of Majumdar and Serizawa together. The Examiner argued that the unexpected results (using water-swellaible mica versus smectite; and also the curling properties) do not matter because Serizawa teaches using mica.

The Examiner advised that the Declaration and supplemental data were not relevant to the new rejection of the claims based upon the combination of Majumdar and Serizawa. The Examiner acknowledged that Majumdar did not teach utilizing water-swellaible mica, but stated that her position is that the data and declarations are not persuasive for overcoming the present rejection because she has combined Majumdar with Serizawa, and Serizawa discloses a resin layer having the water-swellaible mica.

Applicants' representative further explained Applicants' remarks set forth in Applicants' Amendment filed January 11, 2008. In this regard, Serizawa discloses that the resin layer containing the water-swellaible mica is in between a recording layer and a support, and that the reference does not disclose that the resin layer can be used as a backcoat layer. The resin layer is placed in between the recording layer and the support, so that the transfer of water vapor and

gases is prevented, thus, preventing blistering. It would not have been obvious to one having ordinary skill in the art to use the resin layer of Serizawa as the backcoat layer in Majumdar, in that the resin layer in Serizawa is used to prevent blistering. Because Serizawa teaches that it is used to prevent blistering, to do so, the resin layer would be used in between the recording layer and support, and would not be used as the backcoat layer. The Examiner responded that she would not make a comment as to Applicants' arguments during the Interview, but if Applicants would set forth their position in a written response regarding the lack of motivation to combine the teachings of Serizawa with Majumdar, she would consider them.

No agreement was reached.

B. Discussion of Claim Amendments

Claims 1-3, 5, 6 and 8-27 are all the claims pending in the application. Claims 4 and 7 have been previously cancelled.

Claim 1 has been amended from “An ink-jet recording medium containing” to recite, “An ink-jet recording medium comprising.” Support for the amendment can be found in originally filed Claim 1. Thus, no new matter has been added.

C. Response to Claim Rejections Under 35 U.S.C. § 103

Claims 1-3, 5, 6 and 8-27 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,475,696 to Majumdar et al. (“Majumdar”) in further view of U.S. Patent No. 6,492,005 to Ohbayashi et al. (“Ohbayashi”) and U.S. Publication No. 2002/0058589 to Serizawa et al. (“Serizawa”). See pages 2-3, paragraphs 2-5 of the Office Action.

The rejection is respectfully traversed for the following reasons.

Applicants respectfully submit that a person having ordinary skill in the art would not have been motivated to combine the disclosures of Majumdar and Serizawa, nor would it have been obvious by any other means to combine the disclosures of the two references, for at least the following reasons.

Serizawa discloses a resin layer containing water-swellaable mica, but teaches that the disclosed resin layer is placed between a recording layer and a support. The resin layer is placed in this particular location to prevent blistering that can occur upon the application of heat. Moreover, the resin layer is placed between the recording layer and the support, so that the transfer of water vapor and gases is prevented, which in return, prevents blistering.

Serizawa fails to disclose anywhere that such a resin layer could be in a different location such as a backcoat layer. This is logical because the purpose of having the resin layer with the water-swellaible mica inbetween the recording layer and the support is to prevent blistering. If the resin layer was placed as a backcoat layer, it would not prevent blistering.

Accordingly, it would not have been obvious to one having ordinary skill in the art to implement the resin layer disclosed in Serizawa as material for a backcoat layer in Majumdar.

Moreover, one having ordinary skill in the art would not have been motivated to combine Serizawa with Majumdar, as the two references relate to two different technical fields. In this regard, Majumdar relates to the technical field of inkjet printing versus Serizawa, which relates to the technical field of heat-sensitive or pressure-sensitive recording. The resin layer of Serizawa is provided for preventing blistering that is a problem specific to heat-sensitive recording (*see* Serizawa at paragraph [0007]). In this regard, the recording layer in the recording material disclosed in Serizawa forms color due to the application of heat and/or pressure. *See* Serizawa at paragraph [0079]. Serizawa discloses that, upon the application of heat, blistering may occur due to the water vapor generated in the recording layer by the application of heat, and discloses that the resin layer containing water-swellaible mica is provided in between the recording layer and support to aid in preventing this blistering. *See* Serizawa at paragraphs [0007] and [0024]. Thus, the blistering is a problem particularly relevant to the heat-sensitive recording, and in order to prevent the blistering, Serizawa discloses that it is desirable to place the resin layer between a substrate and a recording layer. Again, Serizawa fails to make any mention of using the water-swellaible mica as a backcoat layer and one having ordinary skill in the art would not

have been motivated to implement the resin layer elsewhere, as it is needed in that particular location to prevent blistering. With respect to the possibility of placing the resin layer elsewhere, i.e., in a different location such as a backcoat layer, it is simply not disclosed, nor obvious in any other way, from the disclosure of Serizawa, either alone or in combination with Majumdar. As such, one having ordinary skill in the art would not have been motivated to combine the disclosure in Serizawa of the resin layer having water-swellaable mica with the recording layer disclosed in Majumdar.

Finally, Applicants respectfully submit that the Declaration submitted on August 21, 2006 and the additional data submitted on November 21, 2006, are relevant to the present rejection, and support patentability of the presently claimed invention. Applicants respectfully request that the Office reconsider the Declaration and data as evidence in support of nonobviousness, and demonstrate the unexpected superior properties of the presently claimed invention over the disclosure of the primary reference, Majumdar.

In view of the above, Applicants submit that the claims are patentable and nonobvious over the prior art and respectfully request that the rejection of the claims under §103 based on Majumdar, Ohbayashi and Serizawa be withdrawn.

Accordingly, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
AND STATEMENT OF SUBSTANCE OF INTERVIEW
Application No.: 10/830,044

Attorney Docket No.: Q80791

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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